

Appln. No. 10/551,263
Amd. dated September 29, 2010
Reply to Office Action of March 31, 2010

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-5 (**Cancelled**)

6. **(Currently Amended)** The A modified Staphylococcal enterotoxin B (SEB) having a reduced reactivity with a neutralizing antibody to SEB (anti-SEB antibody), SEB of claim 4 wherein the amino acid sequence ~~of~~ from residue position 226 to 229 in the amino acid sequence of SEB as shown in SEQ ID NO:1 is Ala Thr Thr Gln.

7. **(Currently Amended)** The A modified SEB of claim 4 Staphylococcal enterotoxin B (SEB) having a reduced reactivity with a neutralizing antibody to SEB (anti-SEB antibody), wherein the amino acid sequence ~~of~~ from residue position 226 to 229 in the amino acid sequence of SEB as shown in SEQ ID NO:1 is Lys Arg Ile Ile.

8. **(Currently Amended)** The A modified SEB of claim 1 Staphylococcal enterotoxin B (SEB) having a reduced reactivity with a neutralizing antibody to SEB (anti-SEB antibody), wherein

Appln. No. 10/551,263
Amd. dated September 29, 2010
Reply to Office Action of March 31, 2010

Asn at 23-position residue position 23 in the amino acid sequence of SEB as shown in SEQ ID NO: 1 is substituted with Tyr.

Claims 9-15. (**Cancelled**)

16. (**Currently Amended**) The modified SEB of claim 6,
wherein Asn at 23-position residue position 23 in the amino acid sequence of SEB as shown in SEQ ID NO: 1 is substituted with Tyr.

17. (**Currently Amended**) The modified SEB of claim 7,
wherein Asn at 23-position residue position 23 in the amino acid sequence of SEB as shown in SEQ ID NO: 1 is substituted with Tyr.

Claims 18-20 (**Cancelled**).

21. (**Currently Amended**) A modified Staphylococcal enterotoxin B (SEB), having a reduced reactivity with a neutralizing antibody to SEB (anti-SEB antibody), and capable of being expressed in a soluble form in E. coli Escherichia coli so as to be maintained stably in an aqueous solution and that which modified SEB retains a therapeutic effect to immunopathy equivalent to that of naturally occurring SEB, wherein the reactivity with anti-SEB antibody is reduced by introducing in the amino acid sequence of SEB as shown in as a result of amino acid substitution at residue positions 226 to 229

Appln. No. 10/551,263
Amd. dated September 29, 2010
Reply to Office Action of March 31, 2010

of SEQ ID NO: 1, with the amino acid sequence at residue positions 226 to 229 of SEQ ID NO:1 being substituted with an amino acid substitution from Lys at 226 position to Lys at 229 position of Leu Phe Ala Ala, Ala Thr Thr Gln, respectively, or substituted with Lys Arg Ile Ile, respectively, and wherein Asn at 23 position residue position 23 of SEQ ID NO:1 is substituted with Tyr.

Claim 22 (**Canceled**)

23. (**Withdrawn**) In a method for the treatment of rheumatoid arthritis comprising administration to a patient in need thereof an effective amount of a treatment agent, the improvement wherein

the treatment agent comprises the modified SEB of claim 21.